SHOW FILES
File 13:BAMP 2006/Mar W3
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File 15:ABI/Inform(R) 1971-2006/Mar 30
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Set Items Description
S1 2 RESTAURANT? AND PLANNING AND ((CALCULAT? OR PROJECT? OR PR-EDICT?) (5W) (WASTE (2N) FOOD)) AND PD<=980101

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1/3/1
            (Item 1 from file: 13)
DIALOG(R) File 13:BAMP
(c) 2006 The Gale Group. All rts. reserv.
00524927
             Supplier Number: 23578696 (USE FORMAT 7 OR 9 FOR FULLTEXT)
 Tapping a human resource: Restaurants fight labor crunch with training
  programs
(Innovative employee training and retention programs are being developed
  and used by a number of casual dinner-house operators as a way to keep
   employees)
Article Author(s): Zuber, Amy
Nation's Restaurant News, v 30, n 26, p 33-34,36
July 08, 1996
DOCUMENT TYPE: Journal; Guideline ISSN: 0028-0518 (United States)
LANGUAGE: English RECORD TYPE: Fulltext; Abstract
WORD COUNT: 2036
  1/3/2
           (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2006 ProQuest Info&Learning. All rts. reserv.
00645476 92-60416
Collecting and Composting Food Waste
Beesley, Neil H.
BioCycle v33n10 PP: 56-59 Oct 1992
ISSN: 0276-5055 JRNL CODE: BIO
WORD COUNT: 1974
?
```

# First Hit Fwd Refs End of Result Set

## Previous Doc Next Doc Go to Doc#



L3: Entry 1 of 1 File: USPT Feb 15, 2000

DOCUMENT-IDENTIFIER: US 6026372 A

TITLE: Computer system for maintaining current and predicting future food needs

#### Detailed Description Text (3):

FIG. 2 is a block diagram showing the arrangement of a major portion of the ECR 10. This includes a menu registration means 30 for registering therein the selected food items of a menu, slip issuance means 31 for issuing an order slip to a customer, a desired quantity at specific time registration means 32 for registering therein the desired quantity of a selected **food** item for a desired time period during the day, a special add-on quantity registration means 33 for registering therein a value for special food item quantity circumstances, total quantity desired decision means 34 for computing the desired quantity under special circumstances, total quantity desired registration means 36 for registering therein the total desired value therein, quantity on hand decision and registration means 37 for computing and registering therein the quantity of each food item on-hand, i.e. the quantity presently completely cooked, number of items to cook registration means 38 for registering therein the number of each food item to be cooked with each cooking instruction, number of items currently being processed decision and registration means 39 for registering therein the number of food items being processed, i.e. the quantity presently being cooked, wasted food items decision means 41 for computing the number of food items to be counted as waste, wasted food items registration means 42 for registering the value of wasted items from the wasted food items decision means 41, time to prepare registration means 43 for registering therein the time it takes to prepare each food item, i.e. the cooking time, prediction commencement time decision means 44 for computing the proper time to transmit a cooking instruction for each food item by subtracting the corresponding value of the time to prepare registration means 43 from the time value of the desired quantity at specific time registration means, prediction commencement time registration means 46 for registering therein the value of the prediction time commencement decision means 44, cooking instruction transmission means 47 for transmitting a cooking instruction to a cook station monitor 12, cooking initiated transmission means 48 for transmitting input of a commencement command from the cooking station input 16, total processed quantity decision means 49 for computing the total quantity of food items on-hand and presently cooking, total processed quantity registration means 50 for registering therein the value of the total processed quantity value decision means 49, and cooking complete transmitting and registration means 51 for transmitting the completion signal from the cooking station input 13 and registering the complete cooking of a food items. FIG. 4 shows an example of table entries entered into the just described registration means. It should be understood that the term "table" may also include a single entry value and that the term "value" is not restricted to a single entry but may include a table of values.

#### Detailed Description Text (9):

As each food item is completely processed the cook initiates a finished input upon the cook's input 13 which is entered into the cooking complete decision and registration means 51. The system adds the value of the number of items to cook

registration means 38 to the value of the quantity on hand decision and registration means 37 and subtracts the same value from the value within the number of items currently being processed decision and registration means 39. The entry of a discarded or wasted food item is added to the present value within the wasted food items registration means 42 by the wasted food items decision means 41, with the resultant value being stored within the wasted food items registration means 42. Wasted food will be reflected by a subtraction of such from the quantity on hand.

> Previous Doc Next Doc Go to Doc#

### Hit List

Bkwd Refs Fwd Refs First Hit Generate Collection Print Clear Generate OAGS

Search Results - Record(s) 1 through 10 of 12 returned.

☐ 1. Document ID: US 6026372 A

Using default format because multiple data bases are involved.

L12: Entry 1 of 12

File: USPT

Feb 15, 2000

US-PAT-NO: 6026372

DOCUMENT-IDENTIFIER: US 6026372 A

TITLE: Computer system for maintaining current and predicting future food needs

DATE-ISSUED: February 15, 2000

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Savage; John K.

Decatur

GΑ

30030

US-CL-CURRENT: 705/15; 705/20, 705/22, 705/28, 705/29

Full Title Citation Front Review Classification Date Reference Citation Called Chairms Full Draw De ☐ 2. Document ID: US 5845263 A Dec 1, 1998

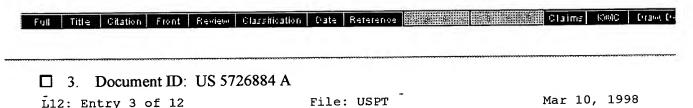
File: USPT

US-PAT-NO: 5845263

DOCUMENT-IDENTIFIER: US 5845263 A

L12: Entry 2 of 12

TITLE: Interactive visual ordering system



US-PAT-NO: 5726884

DOCUMENT-IDENTIFIER: US 5726884 A

TITLE: Integrated hazardous substance tracking and compliance

☐ 4. Document ID: US 5664112 A

L12: Entry 4 of 12

File: USPT

Sep 2, 1997

US-PAT-NO: 5664112

DOCUMENT-IDENTIFIER: US 5664112 A

TITLE: Integrated hazardous substances management unit

Full Title Citation Front Review Classification Date Reference Citation Claims Kimic Draw, De

☑ 5. Document ID: US 5377095 A

L12: Entry 5 of 12

File: USPT

Dec 27, 1994

US-PAT-NO: 5377095

DOCUMENT-IDENTIFIER: US 5377095 A

TITLE: Merchandise analysis system with sales data table and various functions for

predicting the sale by item

Full Title Citation Front Review Classification Date Reference Company of the Claims Kindo Craw Co

☐ 6. Document ID: US 5168445 A

L12: Entry 6 of 12

File: USPT

Dec 1, 1992

US-PAT-NO: 5168445

DOCUMENT-IDENTIFIER: US 5168445 A

\*\* See image for <u>Certificate of Correction</u> \*\*

TITLE: Automatic ordering system and method for allowing a shop to tailor ordering

needs

Full Title Citation Front Review Classification Data Reference Review Citation Claims Foot Draw Co.

☐ 7. Document ID: US 4879650 A

L12: Entry 7 of 12

File: USPT

Nov 7, 1989

US-PAT-NO: 4879650

DOCUMENT-IDENTIFIER: US 4879650 A

TITLE: POS register system with combined optical scanner and weighing machine

☐ 8. Document ID: US 4821186 A

L12: Entry 8 of 12

File: USPT

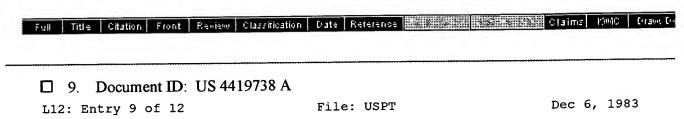
Apr 11, 1989

US-PAT-NO: 4821186

DOCUMENT-IDENTIFIER: US 4821186 A

TITLE: Bar code reading electronic cash register having an automatic discount

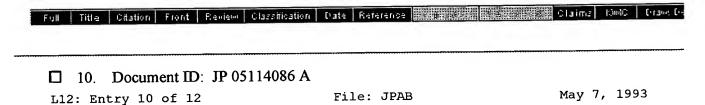
function



US-PAT-NO: 4419738

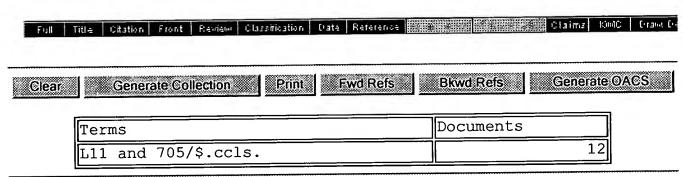
DOCUMENT-IDENTIFIER: US 4419738 A

TITLE: Unit-price presetting method for electronic cash registers



PUB-NO: JP405114086A

DOCUMENT-IDENTIFIER: JP 05114086 A TITLE: COMMODITY SALES DATA PROCESSOR



Display Format: - Change:Format

<u>Previous Page</u> <u>Next Page</u> <u>Go to Doc#</u>

#### First Hit Fwd Refs

# Previous Doc Next Doc Go to Doc# Generate Collection Prints

L12: Entry 5 of 12

File: USPT

Dec 27, 1994

DOCUMENT-IDENTIFIER: US 5377095 A

TITLE: Merchandise analysis system with sales data table and various functions for

predicting the sale by item

Application Filing Date (1):

<u> 19920707</u>

DATE ISSUED (1):

19941227

Detailed Description Text (152):

FIGS. 33 to 36 show a sixth embodiment of the present invention in which the setting of the optimum price (by date) in the fifth embodiment is used for decision of a discount amount of money for items such as perishable foods and daily delivery goods subjected to price change at every time zone in one day. FIG. 33 is a flow chart showing the operation of this system, FIG. 34 is a detailed flow chart of the sale prediction, and FIGS. 35 and 36 show examples of the scene.

<u>Current US Original Classification</u> (1): 705/10

Previous Doc Next Doc Go to Doc#

# First Hit Fwd Refs End of Result Set

#### Previous Doc Next Doc Go to Doc#

Generate:Gollection Print

L2: Entry 1 of 1

File: USPT

Feb 15, 2000

DOCUMENT-IDENTIFIER: US 6026372 A

TITLE: Computer system for maintaining current and predicting future food needs

#### Brief Summary Text (4):

In today's restaurant industry an inventory of prepared food items is maintained in order to insure a desired quantity is readily available for immediate sale. It is typically the restaurant manager's responsibility to monitor the current inventory of prepared food items and instruct the cook to prepare additional food items to meet future needs. The quantity of food items maintained in inventory and the estimation of the quantity of food items to prepare in advance of the need is accomplished through the manager's knowledge of past sales, waste and outside influences, such as weather conditions. Thus, should the restaurant manager be poor at calculating future needs or become unavailable or otherwise occupied this disruption may cause too much food to be prepared and therefore wasted, or too little food to be prepared and therefore become unavailable to future customers.

#### Detailed Description Text (3):

FIG. 2 is a block diagram showing the arrangement of a major portion of the ECR 10. This includes a menu registration means 30 for registering therein the selected food items of a menu, slip issuance means 31 for issuing an order slip to a customer, a desired quantity at specific time registration means 32 for registering therein the desired quantity of a selected food item for a desired time period during the day, a special add-on quantity registration means 33 for registering therein a value for special food item quantity circumstances, total quantity desired decision means 34 for computing the desired quantity under special circumstances, total quantity desired registration means 36 for registering therein the total desired value therein, quantity on hand decision and registration means 37 for computing and registering therein the quantity of each food item on-hand, i.e. the quantity presently completely cooked, number of items to cook registration means 38 for registering therein the number of each food item to be cooked with each cooking instruction, number of items currently being processed decision and registration means 39 for registering therein the number of food items being processed, i.e. the quantity presently being cooked, wasted food items decision means 41 for computing the number of food items to be counted as waste, wasted food items registration means 42 for registering the value of wasted items from the wasted food items decision means 41, time to prepare registration means 43 for registering therein the time it takes to prepare each food item, i.e. the cooking time, prediction commencement time decision means 44 for computing the proper time to transmit a cooking instruction for each food item by subtracting the corresponding value of the time to prepare registration means 43 from the time value of the desired quantity at specific time registration means, prediction commencement time registration means 46 for registering therein the value of the prediction time commencement decision means 44, cooking instruction transmission means 47 for transmitting a cooking instruction to a cook station monitor 12, cooking initiated transmission means 48 for transmitting input of a commencement command from the cooking station input 16, total processed quantity decision means 49 for computing the total quantity of food items on-hand and presently cooking, total processed quantity registration means 50 for registering therein the value of the total processed quantity value decision means 49, and cooking complete transmitting and registration means 51 for transmitting the completion signal from the cooking station input 13 and registering the complete cooking of a food items. FIG. 4 shows an example of table entries entered into the just described registration means. It should be understood that the term "table" may also include a single entry value and that the term "value" is not restricted to a single entry but may include a table of values.

#### Detailed Description Text (9):

As each food item is completely processed the cook initiates a finished input upon the cook's input 13 which is entered into the cooking complete decision and registration means 51. The system adds the value of the number of items to cook registration means 38 to the value of the quantity on hand decision and registration means 37 and subtracts the same value from the value within the number of items currently being processed decision and registration means 39. The entry of a discarded or wasted food item is added to the present value within the wasted food items registration means 42 by the wasted food items decision means 41, with the resultant value being stored within the wasted food items registration means 42. Wasted food will be reflected by a subtraction of such from the quantity on hand.

Previous Doc Next Doc Go to Doc#

First Hit Previous Doc Next Doc Go to Doc#

**End of Result Set** 

Generate:Collection Print

L8: Entry 2 of 2 File: USOC Jan 23, 1968

DOCUMENT-IDENTIFIER: US 3365700 A TITLE: Telemetering inventory system

#### OCR Scanned Text (2):

United States Patent Office 3,3652700 3,365,700 Tl-qLEi@IR-iERI,NG INVENTORY SYSTEM Wi'aliam C. CoTtner, Jr, 2601 E. Barry Read, Kansas City Mo. 64156, and acorge H. Herman, Silver Gate: Mon't.; saiii- Herman assignor to said Cortner, Jr. Filed Feb. 5, 1962, Ser. No. 171,032 16 Cishus. (Cl. 340-153) This inve@qtion relates to an iiiventory system, and particularly to an automatic telemeterin- inventory system for remotely determining usage of items such as inight be disposed in an autome-,tic vending machine. Thoug'n the description proceeds in relation to a v,-nd- ing machine, it will be apparerit that the inventory system item. may be used in determining usage of any type of or a rlurality of different items, whether initiauy disposed in a vendidg machine or not. By this invention, management can check any one of its vendin--- maciiines to deterinine if it was serviced on schedule, and -vvh- @ther it was properly filled with the merchand: lse being sold. Management can also, at any time of the day or ni,-ht, check the amount of each type of m,-rchandise sold by any one of its vending machines, and compare the cash receipts with the sales reported by a route man. From this inveiation, mana.-ement can determine the peak and slack buyidg hours, and what items are in most demand at each on.- of its vendh-ig machines, and can detect any sold-out conditions before a complaint is made. Further, it will be apparent that this in,,, ention aids in the e@limination of waste of perishable foods, cuts route costs since each route man would serve only the machines that were in immediate need of attentioti and thereby increase his productivity, gives mana.-ement complete route control and ability to pin point normally unexplai- .lable shortages, allows management to determine if any maciiine is out of order, and aids in building better customer relatiors by knowin. - what is bappening at each location at all times. By extensive use of this invention, the best mana.@ement policies of vending operation may be put to work and directed and controlled, making each route as productive as the combii-ed knowledge of mana-.ement. FLrCner, the invention will make an automatic vending machine complete, and in general stimulate the vending industry. AccordiTialy, this i-, ivention has as an object an automatic telemeterin- inventory system for automatic vending inachines, which will effect the purposes and advantages above indicated. Other objects and advanta-, es of this invention , vill b.ecome apparent upon readin. - the followin- detailed disclosure aid appended claims in conjunction with the accompa, iyin. - drawin, @ which illustrates an exemplary embod, 'ment of the invention. The drawin-. dia-, rair@matically shows an automatic vending irachipe 30 that 1-.as a plurality of columns, five being shown and designated A through E, respectively. This number oil columns is only exemplary, and may of course be iicreased or decreased in accordance with the parlicular situation at hand. Each column includes, for examdle, twenty stores haiing shelves the bottom three and top one of which are illustrated in the drawing and- desi.-nated respectively I., 2, 3, ZO. Any particular shelf referred to hereinafter in this description is desinated !by a combination of its column letter and shelf number in that column, for example shelf A-1, which of course refers to the lowest shelf in the left column in the vending iriachine 30. Ear-h of these shelves, in the sp.-cific embodiment being described, is hi-i,-ed at one side, as at respective points 26, so that the removal

of the mercbandise, for example a sandnvich 28 disposed on the shelf automatically causes the shelf to drop do-, vpward, by conventional means not shown, as to the position shown by sbelf B-1. Patented Jan. 23, 1968 2 Associated with each shelf is a means for indicating usage of the ite-rn on that shelf. For example, each shelf has associated with it a respective normally-closed pushbutton switch, preferably of the microswitch type, which has its contacts opened when the associated shelf drops @as may be noted by reference to switch B-1. An associated shelf and switch are given the same designation, switch B-1 being that switch which is associated with shelf B-1. 10 By reference to the drawing, it wiU be noted that all of the illustrated shelves in column A are in their up position, and cons--quently all of the column A switches are closed. In column B, oily the lowest shelf I has been dropped due to removal of m,-rchandise previously there- 15 oi, and accordingly only the lowest switch associated with column B has its contacts opened. In column C, the two lower shelves ar@- down, so switches C-1 and C-2 are Opel, while in colur--n D the three lower shelves are down and the associated D switches are open. For column E, 20 all four of the il'iustrated shelves are down, so the associated switches E-1, E-2, E-3 and E-20 are open. It will be noted that all of the upper contacts of each switch for any one column are connected in parallel to a give@i output line. That is, all the column A swilches have their 9-5 upper contacts connected to line 32, those in columt1 B to line 34, those in column C to line 36, those in column D to line 38, and those in column E to line 40. How these lines and the lower contacts of each of the swi@, ches are connected into the i-@iventory system is described below 3( in detail, after the followin.- discussion of the remote telemetering cquipment. The drawin- illustrates a system which will sel@ectively inventory any 'one o'L a number of verldipg machines and/or vending machines stations which are equipped in accord- 35 ance with this invention, for examt) le equi-ot) ed as- illustrated in detail. That is, besides t'ne illustrated detailed veiiding machine, another vendin- machine 42 similarly equipped may be selected instead"to inventory the number of items used in any one category of items, or all of 40 the categories thereof which the particular vending machine handles. In this respect, thou.-h the items 29 dia@rammaticall@y show-ii in 'Lhe drawir@g are all similar, it will be of course appreciated that each column of the vepding rnachine may dispense a dLTerent type of merchandise as 45 is the usual case. To effect sp-lection of ore vending machine as opposed to another, a central selector system 44 may be employed in conjunction with a remote telepho-iie dial and receiver system 46. The remote telephone dial systemi may 50 be of the conventional nature to apply a ur@ique signal to the central selector system 44 upon dialin- a particil-lar number which corresponds to the desi.-nation of the vendin. - system to be iiventoried. The central sp-lector system may also be of the conventional type employed in 55 J. regular telephone systems, which accepts the u-Giique signal applied to it and eff-.ctively decodes same to provide an output signal on the proper one of its output lines. For example, to select vending machine 42, the selector system would provide an appropriate signal on line 45 60 to the exclusion of each of its other indicated output lines including line 48. On the ol, her hand, to iiventory vendin machine 30, a different number would be dialed, and 9 only output line 48 would be sele.-ted by the selector 65 systeip 44. N'Vhen this happens, the signal provided to line 48, which may be a conventional telephone line ex- tendin-, a considerable distance, arrives at the location of vending m-achine 30 to energize power switch 50. This switch may be so equipped (by conventional means -ilot 70 shown) to return a normal telephone type, busy si.onal over line 43 if the vendin. - machine being called has any of its electrical or mecbanical cqtiipment improperly

Date Issued (1):
19680123

<u>Current US Original Classification</u> (1): 705/29

### Hit List

First Hit Clear Generate:Collection Print Ewd:Refs Bkwd:Refs

Generate:OACS

Search Results - Record(s) 1 through 7 of 7 returned.

☐ 1. Document ID: US 6026372 A

Using default format because multiple data bases are involved.

L16: Entry 1 of 7

File: USPT

Feb 15, 2000

US-PAT-NO: 6026372

DOCUMENT-IDENTIFIER: US 6026372 A

TITLE: Computer system for maintaining current and predicting future food needs

DATE-ISSUED: February 15, 2000

INVENTOR-INFORMATION:

NAME

- 1

CITY

STATE

ZIP CODE

COUNTRY

Savage; John K.

Decatur

GA

30030

US-CL-CURRENT: 705/15; 705/20, 705/22, 705/28, 705/29

Full Title Citation Front Review Classification Date Reference Classification Claims Full Claims Front Practice Company Classification Date Reference Classification Claims Full Claims Fu

File: USPT

L16: Entry 2 of 7

US-PAT-NO: 5845263
DOCUMENT-IDENTIFIER: US 5845263 A

TITLE: Interactive visual ordering system

Full Title Citation Front Review Classification Cate Reference Classification Cate Reference Classification Company Co

J. Document Es. 050/2000 12

L16: Entry 3 of 7

File: USPT

Mar 10, 1998

Dec 1, 1998

US-PAT-NO: 5726884

DOCUMENT-IDENTIFIER: US 5726884 A

TITLE: Integrated hazardous substance tracking and compliance

☐ 4. Document ID: US 5664112 A

L16: Entry 4 of 7

File: USPT

Sep 2, 1997

US-PAT-NO: 5664112

DOCUMENT-IDENTIFIER: US 5664112 A

TITLE: Integrated hazardous substances management unit

Full | Title | Citation | Front | Review | Classification | Date | Reference | Full | Title | Citation | Front | Review | Classification | Date | Reference | Full | Title | Citation | Front | Review | Classification | Date | Reference | Full | Title | Citation | Front | Review | Classification | Date | Reference | Full | Title | Citation | Front | Review | Classification | Date | Reference | Full | Title | Citation | Front | Review | Classification | Date | Reference | Full | Title | Citation | Front | Review | Classification | Date | Reference | Full | Title | Citation | Front | Review | Classification | Date | Reference | Full | Title | Citation | Classification | Date | Reference | Full | Title | Citation | Classification | Date | Reference | Full | Title | Citation | Classification | Date | Reference | Full | Title | Citation | Classification | Date | Reference | Full | Title | Citation | Classification | Date | Reference | Full | Title | Citation | Classification | Date | Reference | Full | Title | Citation | Classification | Date | Reference | Full | Title | Citation | Classification | Date | Reference | Full | Title | Citation | Classification | Date | Reference | Classification | Date | Date | Classification | Date |

☐ 5. Document ID: US 5168445 A

L16: Entry 5 of 7

File: USPT

Dec 1, 1992

US-PAT-NO: 5168445

DOCUMENT-IDENTIFIER: US 5168445 A

\*\* See image for Certificate of Correction \*\*

TITLE: Automatic ordering system and method for allowing a shop to tailor ordering

needs

Full Title Citation Front Review Classification Date Reference Title Citation Front Review Classification Date

☐ 6. Document ID: US 4879650 A

L16: Entry 6 of 7

File: USPT

Nov 7, 1989

US-PAT-NO: 4879650

DOCUMENT-IDENTIFIER: US 4879650 A

TITLE: POS register system with combined optical scanner and weighing machine

Full Title Citation Front Review Classification Data Reference (Company) (Claims MMC Draw, De

☐ 7. Document ID: US 3365700 A

L16: Entry 7 of 7

File: USOC

Jan 23, 1968

US-PAT-NO: 3365700

DOCUMENT-IDENTIFIER: US 3365700 A

TITLE: Telemetering inventory system

DATE-ISSUED: January 23, 1968

INVENTOR-NAME: HERMAN GEORGE H; CORTNER JR WILLIAM C

US-CL-CURRENT: 705/29

Full	Title Citation	Front	Review	Classification	Date	Reference		*25.5	Claima	FMAC	Erraine Er-
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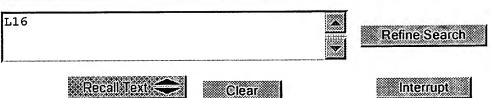
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Database:

US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:



## Search History

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<u>L10</u>	((perish\$ or waste or wasting or wasted\$) near2 (thing\$ or substance or meat\$ or food\$ or drink\$)) and @ad<=19970527	8700	<u>L10</u>
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<u>L8</u>	L7 and 705/\$.ccls.	2	<u>L8</u>
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DB =	USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
<u>L2</u>	L1 and wast\$	1	<u>L2</u>
<u>L1</u>	6026372.pn.	1	<u>L1</u>

## **END OF SEARCH HISTORY**

## Freeform Search

Da	tabase:	US Pre-Grant Publication Full-Text Database US Patents Full-Text Database US OCR Full-Text Database EPO Abstracts Database JPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins		
Te	rm:	L15 and 705?\$.ccls.		
Dis	splay:	10 Documents in <u>Display Format</u> : - Starting with N	umber 1	
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L15	L11 and	d (inventory or inventories\$)	98	<u>L15</u>
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L13	L11 and	1 705/?.ccls.	1	<u>L13</u>
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<u>L11</u>	19 or L	10	11684	<u>L11</u>
<u>L10</u>		\$ or waste or wasting or wasted\$) near2 (thing\$ or substance or or food\$ or drink\$)) and @ad<=19970527	8700	<u>L10</u>
<u>L9</u>		\$ or waste or wasting or wasted\$) near2 (thing\$ or substance or or food\$ or drink\$)) and @pd<=19970527	10072	<u>L9</u>
<u>L8</u>		705/\$.ccls.	2	<u>L8</u>
<u>L7</u>	13 or L	5	4223	<u>L7</u>

L5	L4 and 705/\$.ccls.	1	<u>L5</u>
<u>L4</u>	L3 and (store\$ or restaurant\$ or supermarket\$)	776	<u>L4</u>
<u>L3</u>	((waste or wasting or wasted\$) near2 (food\$ or drink\$)) and @ad<=19970527	3293	<u>L3</u>
DB=	=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
L2	L1 and wast\$	1	<u>L2</u>
<u>L1</u>	6026372.pn.	1	<u>L1</u>

## END OF SEARCH HISTORY

# First Hit Fwd Refs End of Result Set

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L1: Entry 1 of 1

File: USPT

Feb 15, 2000

US-PAT-NO: 6026372

DOCUMENT-IDENTIFIER: US 6026372 A

TITLE: Computer system for maintaining current and predicting future food needs

DATE-ISSUED: February 15, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Savage; John K. Decatur GA 30030

APPL-NO: 08/863000 [PALM]
DATE FILED: May 27, 1997

INT-CL-ISSUED: [07]  $\underline{G06}$   $\underline{F}$   $\underline{19/00}$ ,  $\underline{G06}$   $\underline{F}$   $\underline{17/30}$ 

US-CL-ISSUED: 705/15; 705/20, 705/22, 705/28, 705/29 US-CL-CURRENT: 705/15; 705/20, 705/22, 705/28, 705/29

FIELD-OF-CLASSIFICATION-SEARCH: 705/15, 705/20, 705/22, 705/28, 705/29, 99/468,

99/486, 99/325, 99/332, 99/327, 99/326, 99/335, 99/342, 219/702, 426/523

Search Selected Search ALL

See application file for complete search history.

PRIOR-ART-DISCLOSED:

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Clear

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
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4530067	July 1985	Dorr	705/15
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4922435	May 1990	Cahlander et al.	700/247
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5504589	April 1996	Montague et al.	358/403
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<u>5616269</u>	April 1997	Fowler et al.	219/720
5653906	August 1997	Fowler et al.	219/716
5812393	September 1998	Drucker	700/15

ART-UNIT: 274

PRIMARY-EXAMINER: Trammell; James P.

ASSISTANT-EXAMINER: Nguyen; Cuong H.

ATTY-AGENT-FIRM: Kennedy, Davis & Hodge, LLP

#### ABSTRACT:

A computer system (10) is provided which includes an electronic cash registers (11) electronically coupled to a cooking station monitor (12) and input (13), and a manager's station monitor (15), input (16), and printer (17). The system instructs the cook to initiate a cooking process in response to the number of items on hand and items currently being cooked in view of the number of items typically desired to have on hand at a particular time of the day.

13 Claims, 4 Drawing figures

Previous Doc Next Doc Go to Doc#

L16: Entry 2 of 7 File: USPT Dec 1, 1998

DOCUMENT-IDENTIFIER: US 5845263 A

TITLE: Interactive visual ordering system

# Application Filing Date (1): 19950616

#### Brief Summary Text (17):

Restaurants are also manually gathering data where people live and what types of menu items are in demand. <u>Perishable food</u>, such as seafood, requires ordering food based on the latest information available from the previous week or yesterday's restaurant activities.

#### Detailed Description Text (8):

When the computer 102 is part of the network 120, other computers 102 can also be part of the network 120. Further, the network 120 can include a computer for establishing an accounting and inventory terminal 122 which may be located, for example, in an office of the restaurant. Moreover, the network 120 can include a computer for establishing an order processing terminal 124 which may be located, for example, in the kitchen of the restaurant. Still further, the system 100 can include a wide area network (WAN) 126 which is in data communication with a wide area distribution server 128, other restaurants 130, and remote terminals 132 that can be located in private residences. The WAN 126 can include telephone lines, the Internet, fiber optics, T1/T3 communications, cable television, and broadband networks.

#### Detailed Description Text (12):

One such application is shown in FIG. 1, which shows the IVO system 100 in a network configuration. The system 100 includes four subcomponents: a Multimedia Database, a Communications Processor, an <u>Inventory</u>, Purchasing and Accounting Processor, and a Point of Sales Interface. Using easily available and upgradeable commercial-off-the-shelf components, it is an inexpensive, yet highly capable means to increase efficiency of retail operations.

#### <u>Detailed Description Text</u> (15):

FIGS. 1 and 2 show block diagrams of a complete system 100. All or part of this system can be integrated to provide a business (at location 102) with varying display capabilities. The system contains a local multimedia database on a floppy diskette 116 or a hard drive 110 in a computer usable data medium 117, which contains the vendor's product information, stored on a multimedia database server 128 that is linked with a WAN (wide area network) 126 or a LAN (local area network) 120 to a customer terminal 102, an accounting & inventory terminal 122, an order processing terminal 124, other restaurants 130, a remote customer terminal 132, etc.

#### Detailed Description Text (20):

An embodiment of the invention includes a plurality of components at the vendor's location 118. These components may include the Customer Terminal 102, the Accounting & Inventory Terminals 122, the Order processing Terminals 124, the Wide Area Multimedia Database Server 128 with network 120 or WAN 126. Computer usable data medium 117 on floppy diskette 116 may be stored and/or accessed on a hard

drive 102 or a wide area database server 128. These components will be further described hereinbelow.

#### Detailed Description Text (31):

The accounting & inventory computer 122 and order processing computer 124 hereinafter referred to as "workstation terminals" are custom designed, using offthe-shelf hardware and software components, for the function they perform. For example, a kitchen remote order processing unit displays the orders to be filled and accepts user inputs to indicate that orders are ready for pickup and to update the order status. A stock room terminal displays orders to be filled and where the items can be found in the stock room. A shipping terminal displays all of the items that make up a shipping order and shipping instructions.

#### Detailed Description Text (36):

The Multimedia Database Server functions can be performed by the workstations 122, 124 to store data relating to vendor products or services. The wide area database server 128 responds to customer data queries and vendor updates. As orders are taken, messages are sent to the Accounting-Inventory Terminal 122, detailing changes in inventory and transaction information.

#### Detailed Description Text (46): Accounting-Inventory Processor

#### Detailed Description Text (47):

The Accounting-Inventory Terminal 122 maintains a database of on-hand inventory, cost and purchasing information for product and transaction information. The Accounting & Inventory terminal 122 is capable of printing daily transaction, shortage, and inventory reports.

#### Detailed Description Text (48):

The Accounting-Inventory terminal 122 typically includes one or more PCs with minimal graphics capabilities, a large hard drive, 16 Megabytes of memory, a LAN interface, and a printer interface.

#### Current US Original Classification (1): 705/27

Current US Cross Reference Classification (1): 705/15

> Next Doc Go to Doc# Previous Doc

## Generate@ollection Print

L16: Entry 5 of 7 File: USPT Dec 1, 1992

DOCUMENT-IDENTIFIER: US 5168445 A

#### \*\* See image for Certificate of Correction \*\*

TITLE: Automatic ordering system and method for allowing a shop to tailor ordering

needs

### Application Filing Date (1):

19890221

#### DATE ISSUED (1):

19921201

#### Brief Summary Text (2):

This invention relates to a system of ordering goods at a retail shop and more particularly to an automatic ordering system suitable for ordering work and inventory control of goods distributed daily, such as are sold in mass at a supermarket or the like, for which demand changes greatly.

#### Brief Summary Text (3):

As described in NIKKEI Communication, Jan. 4, 1988, pp. 68-72, in a conventional automatic ordering system, the inventory control caretaker, such as shop manager, precedently sets up a proper shop stock standard by considering the past results. An actual change of shop stock is collated with the shop stock standard so that when out-of-stock tends to occur, a supplemental order may be effected automatically. Otherwise, ordering new goods to replenish depleted inventory work is performed with reference to the experience and intuition of the person in charge of ordering.

#### Brief Summary Text (6):

An object of this invention is to provide an automatic ordering system which can enable the stock caretaker, such as a shop manager, to understand and utilize factors of changing demand for individual goods to assist him in the determination of the order amount to replenish <u>inventory</u> and diagnosis of the stock volume of individual goods in accordance with the condition or status of his own shop.

#### Brief Summary Text (8):

The rule describing means can facilitate description, addition and correction of the knowledge for predicting the sales volume and diagnosing the order amount and stock volume, so as to permit the automatic ordering system of shop manager's own shop to adjust to comply with needs prevailing in the market area. The automatic ordering system can automatically calculate the order amount and deliver a diagnostic message with respect to a goods item, among a lot of goods, for which the order amount and stock volume are abnormal. Errors in prediction of the sales volume and diagnosis of the order amount can be lessened as compared to the conventional prediction and diagnosis performed under the command of experience and intuition of the shop manager, thereby ensuring ordering of new inventory in proper order amounts.

#### Detailed Description Text (3):

In ordering new goods to replenish depleted <u>inventory</u> work, lead time for procurement of delivered goods (hereinafter referred to as delivery lead time) is

set and the delivery lead time is a few days after the date of ordering goods. Accordingly, it is necessary to forecast or predict the volume of sales occurring before the delivery lead time and determine the amount of orders (ordered goods) by taking into account the volume of <u>inventories</u> at an ordering time point and the safe total stock which is set to prevent out-of-stock. In case where the ordering cycle (equivalent to an interval of time between adjacent orders) is shorter than the delivery lead time, the amount of orders must be determined by additionally taking into account the amount of previously ordered goods which are scheduled to be delivered before the current delivery lead time.

#### Detailed Description Text (5):

An automatic ordering system according to this embodiment is supplied, in advance, with POS data indicative of actual results of selling and stock data indicative of actual stock of goods. The worker for ordering new goods to replenish depleted inventory inputs to the system (1) information about factors of change of sales volume such as events in the market area and items of goods on bargain sale at his own shop, (2) rules for correcting the volume of sales, which is affected by the factors of change, and (3) rules for diagnosing selling status and demand status. Following these steps, the system operates to determine the order amount of each good and automatically deliver an order slip.

#### Detailed Description Text (27):

The foregoing embodiment has been described as being directed to ordering new goods to replenish depleted inventory but by connecting the automatic ordering system 1401 to a POS system 1402 for controlling the sales volume via the POS data 11 and a stock control system 1403 for controlling the stock volume by using bar-codes and the like via the stock data 13, a retail shop system for controlling the whole route covering sales and arrival/delivery of goods may be constructed as shown in FIG. 14.

#### Detailed Description Text (30):

Further, in addition to controlling of goods suitable for stock (chocolate) exemplified in the foregoing embodiment, goods unsuited for stock, such as perishable foods, may be controlled similarly in accordance with the present invention by using a modified ordering amount calculation formula: ##EQU2##

## <u>Current US Original Classification</u> (1): 705/10

<u>Current US Cross Reference Classification</u> (2): 705/28

#### CLAIMS:

1. An automatic ordering system, adapted to determine an order quantity for procuring various resources sold in mass at a supermarket or the like by generating an order command, said system comprising:

variable condition data storage means for storing condition data reflecting variable sales conditions including weather, entertainment, events at competitive shops or bargain sales;

point of sale data storage means for storing point of sale data comprising actual results of historical selling of the various resources;

correction rule table storage means for correction rules for correcting initial predicted sales volumes based on average sales conditions;

stock data storage means for storing stock data representative of on-hand resources;

ordering data storage means for storing ordering data;

sales volume predictor means operatively associated with said variable condition data storage means, said point of sale data storage means and said correction rule table storage means for predicting a future demand for the various resources on the basis of the condition data, the point of sale data, and the correction rules and storing the predicted future demand as predictive data in a predictive data storage means;

ordering amount calculating means operatively associated with said predictive data storage means and said stock data storage means for determining an order amount of the various resources based on the predictive data and the stock data, and for writing the order amount to the ordering data storage means as said ordering data; and,

ordering processor means operatively associated with said ordering data storage means for ordering said determined order amount by generating an order command to thereby effect an <u>inventory</u> control.

2. The automatic ordering system according to claim 1 further comprising:

stock condition diagnostic means for a) determining whether the stock data and the order amount determined by said ordering amount calculating means are proper and b) selecting a goods item to be particularly noticed by said <u>inventory</u> control caretaker in charge of individual order amounts of individual goods among said various resources; and,

display means for emphatically displaying the individual order amounts of said selected goods item.

- 3. The automatic ordering system according to claim 1 wherein said ordering processor means includes means for generating an order slip for use by an <u>inventory</u> control caretaker as said order command.
- 4. An automatic ordering system for generating an order command to procure sales items thereby effectuating an automatic <u>inventory</u> control, the system comprising:

variable condition data storage means for storing condition data reflecting variable sales conditions causing changes in demand quantity for the sales items including weather, entertainment, events at competitive shops or bargain sales;

point of sale data storage means for storing point of sale data comprising an average of past demand quantities of the sales items;

correction rule storage means for storing correction rules relating the variable condition data to the changes in demand quantity;

sales volume predictor means for generating provisional future demand quantity data for selected ones of the sales items based on said point of sale data modified by the variable condition data according to the correction rules; and,

ordering amount calculator and processing means for ordering inventory according to the future demand quantity data generated and said stock data by generating an order command, thereby effectuating said automatic inventory control.

5. The automatic ordering system according to claim 4 further comprising:

interactive rule correction means for enabling said <u>inventory</u> control caretaker to manually modify said correction rules stored in said correction rule storage means;

and,

automatic rule modifier means for automatically modifying the correction rules stored in said correction rule storage means based on the past demand quantities of said sales items and said variable condition data.

- 7. The automatic ordering system according to claim 4 wherein said ordering amount calculator and processing means includes means for generating an order slip for use by an <u>inventory</u> control caretaker as said order command.
- 8. An automatic ordering system adapted to determine an order quantity and procure various resources sold in quantity at a supermarket retail store or the like, the system comprising:

variable condition data storage means for storing condition data reflecting variable sales conditions including weather, entertainment, events at competitive shops or bargain sales;

point of sale data storage means for storing POS data comprising actual results of historical selling of the various resources;

correction rule table storage means for storing correction rules for correcting initial predicted sales volumes based on average sales conditions;

stock data storage means for storing stock data representative of on-hand resources;

ordering data storage means for storing ordering data;

sales volume predictor means operatively associated with said variable condition data storage means, said point of sale data storage means and said correction rule table storage means for predicting a future demand amount for the various resources on the basis of the condition data, the POS data, and the correction rules and storing the predicted future demand as predictive data in predictive data storage means;

ordering amount calculating means operatively associated with said stock data storage means and said predictive data storage means for determining an order amount of the various resources based on the predictive data and the stock data, and for writing the order amount to the ordering data storage means as said ordering data;

ordering processor means operatively associated with said ordering data storage means for ordering said determined order amount to thereby effect said <u>inventory</u> control;

diagnostic message storage means for storing a diagnostic message;

means for describing a diagnosis knowledge for relating whether said stock data and said order amount are at predetermined proper values; and,

condition diagnostic unit means operatively associated with said stock data storage means and said ordering data storage means for diagnosing whether said stock data and said order amount are at first predetermined appropriate levels based on said described diagnosis knowledge and for retrieving said diagnostic message when the stock data and the order amount are not at the first predetermined appropriate levels.

9. The automatic ordering system according to claim 8, further comprising:

means for displaying the diagnostic message stored in said diagnostic message storage means; and,

manual correcting means for enabling said <u>inventory</u> control caretaker on said system to correct the order amount determined by said ordering amount calculating means as a corrected order amount.

- 15. The automatic ordering system according to claim 10 further comprising rule correction means for enabling said <u>inventory</u> control caretaker on said system to correct, as desired, the diagnostic rules stored in said diagnostic rule storage means.
- 18. The automatic ordering system according to claim 8 wherein said ordering processor means includes means for generating an order slip for use by an <u>inventory</u> control caretaker.
- 19. A method of operating an <u>inventory</u> control apparatus for <u>inventory</u> control by automatically determining and ordering an amount of goods necessary to replenish an <u>inventory</u> to effectuate the <u>inventory</u> control, the method comprising the steps of:

building a historical data base of historical data, said historical data base based on past sales of the goods;

storing said historical data base in a central processing unit of said <u>inventory</u> control apparatus;

building a modifier data base of modifiers, said modifier data base including factors affecting demand over long periods of time, comprising seasonal or holiday demand, and factors influencing demand over very short-term events including a sale at a competing shop and weather conditions;

storing said modifier data base in the central processing unit of said\_inventory control apparatus;

building a stock data storage table of stock data representative of on-hand sales goods;

storing said stock data storage table in the central processing unit of said inventory control apparatus;

modifying an order amount suggested by the historical data base by information stored in the modifier data base;

calculating an actual order amount based on the modified order amount and the stock data; and,

ordering said actual order amount to thereby effectuate said inventory control.

- 20. The method according to claim 19 further comprising the step of, after modifying the order amount, printing an order slip of the actual order amount of sales goods needed to replenish <u>inventory</u>.
- 21. An automatic ordering system for replenishing <u>inventories</u> of goods a demand for which rapidly changes to effect an <u>inventory</u> control, said automatic ordering system comprising:

diagnostic means for describing diagnostic knowledge for diagnosing whether an inventory of an individual good and an order amount for the individual good are within a predetermined proper range, said diagnostic means including means for calculating a tendency of said demand to increase or decrease for said individual

good;

tendency data storage means for storing tendency data representative of said tendency within the system;

diagnostic rule storage means for storing diagnostic rules by which said tendency is related to the <u>inventory</u> and the order amount of the individual good and which is to be checked for its abnormality;

means for checking whether the <u>inventory</u> and the order amount are proper on the basis of said diagnostic rules;

means for displaying a diagnostic message and the order amount then the inventory and the order amount are checked as being improper;

means for updating the order amount by an <u>inventory</u> control caretaker as a corrected order amount; and,

means for ordering said corrected order amount to effect said inventory control.

- 22. The automatic ordering system according to claim 21 wherein said means for ordering the corrected order amount includes means for generating an order slip for use by an <u>inventory</u> control caretaker.
- 23. An automatic ordering method for use with an <u>inventory</u> control apparatus to procure various resources sold in mass at a supermarket or the like by generating an order command, said method comprising the steps of:

storing condition data reflecting variable sales conditions including weather, entertainment, events at competitive shops or bargain sales in a variable condition data storage means of said inventory control apparatus;

storing point of sale data comprising actual results of historical selling of the various resources in a point of sale data storage means of said inventory control apparatus;

storing, in a correction rule table storage means of said <u>inventory</u> control apparatus, correction rules for correcting initial predicted sales volumes based on average sales conditions;

storing stock data representative of on-hand resources in a stock data storage means of said <u>inventory</u> control apparatus;

storing ordering data in an ordering data storage means of said <u>inventory</u> control apparatus;

predicting, in a sales volume predictor means operatively associated with said variable condition data storage means, said point of sale data storage means and said correction rule table storage means, a future demand for the various resources on the basis of the condition data, the point of sale data, and the correction rules and storing the predicted future demand as predictive data in a predictive data storage means of said <u>inventory</u> control apparatus;

determining, in an ordering amount calculating means operatively associated with said predictive data storage means and said stock data storage means, an order amount of the various resources based on the predictive data and the stock data, and writing the order amount to the ordering data storage means as said ordering data; and,

ordering, in an ordering processor means operatively associated with said ordering

data storage means, said determined order amount by generating an order command to thereby effect an inventory control.

24. The automatic ordering method according to claim 23 further comprising the steps of:

determining in a stock condition diagnostic means of the <u>inventory</u> control apparatus whether the stock data and the order amount determined by said ordering amount calculating means are proper and selecting a goods item to be particularly noticed by said <u>inventory</u> control caretaker in charge of individual order amounts of individual goods among said various resources; and,

emphatically displaying the individual order amounts of said selected goods item on display means of said inventory control apparatus.

25. An automatic ordering method for use with an <u>inventory</u> control apparatus to procure sales items thereby effectuating an automatic <u>inventory</u> control, the method comprising the steps of:

storing, in a variable condition data storage means of the apparatus, condition data reflecting variable sales conditions causing changes in demand quantity for the sales items including weather, entertainment, events at competitive ships or bargain sales;

storing, in a point of sale data storage means of the apparatus, point of sale data comprising an average of past demand quantities of the sales items;

storing, in a correction rule storage means of the apparatus, correction rules relating the variable condition data to the changes in demand quantity;

generating, in a sales volume predictor means of the apparatus, provisional future demand quantity data for selected ones of the sales items based on said point of sale data modified by the variable condition data according to the correction rules; and,

ordering, in an ordering amount calculator and processing means of the apparatus, inventory according to the future demand quantity data generated and said stock data by generating an order command, thereby effectuating said automatic inventory control.

28. An automatic <u>inventory</u> ordering method for use with an <u>inventory</u> control apparatus, the method comprising the steps of:

describing diagnostic knowledge for diagnosing whether an <u>inventory</u> of an individual good and an order amount for the individual good are within a predetermined proper range;

calculating a tendency of a demand for said individual good to increase or decrease;

storing tendency data representative of said calculated tendency in a tendency data storage of the apparatus;

storing, in a diagnostic rule storage of the apparatus, diagnostic rules by which said tendency is related to the <u>inventory</u> and the order amount of the individual good and which is to be checked for its abnormality;

checking whether the  $\underline{inventory}$  and the order amount are proper on the basis of said diagnostic rules;

displaying a diagnostic message when the  $\underline{inventory}$  and the order amount are checked as being improper;

updating the order amount as a corrected order amount; and,

ordering said corrected order amount to effect said inventory control.

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L12: Entry 5 of 12

File: USPT

Dec 27, 1994

US-PAT-NO: 5377095

DOCUMENT-IDENTIFIER: US 5377095 A

TITLE: Merchandise analysis system with sales data table and various functions for

predicting the sale by item

DATE-ISSUED: December 27, 1994

INVENTOR-INFORMATION:

ZIP CODE COUNTRY CITY STATE NAME

JP Maeda; Miyuki Sagamihara JΡ Nakata; Hideki Yokohama JΡ Tenma; Tadashi Sagamihara JΡ Shinoda; Shooji Yokohama

ASSIGNEE-INFORMATION:

STATE ZIP CODE COUNTRY TYPE CODE CITY NAME

03 JΡ Hitachi, Ltd. Tokyo

APPL-NO: 07/909951 [PALM] DATE FILED: July 7, 1992

FOREIGN-APPL-PRIORITY-DATA:

APPL-DATE COUNTRY APPL-NO

July 12, 1991 3-198923 JP

INT-CL-ISSUED: [05] G06F 15/21

US-CL-ISSUED: 364/401; 364/402

US-CL-CURRENT: 705/10

FIELD-OF-CLASSIFICATION-SEARCH: 364/401, 364/402, 364/403, 364/404, 364/405,

364/406, 364/408

See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

PATENTEE-NAME US-CL PAT-NO ISSUE-DATE

Hosono ' August 1983 4398250

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5245533	September 1993	Marshall	364/401

ART-UNIT: 231

PRIMARY-EXAMINER: Weinhardt; Robert A.

ATTY-AGENT-FIRM: Fay, Sharpe, Beall, Fagan, Minnich & McKee

#### ABSTRACT:

A merchandise analysis system for predicting the sale of a registered item, including: a sales data table having sales data of a plurality of items; an input terminal for registering an item and for setting an analysis term; a retrieval unit connected to the table and the input terminal to search the sales data table for the sales data corresponding to the registered item and the analysis term; a function table having various functions fitted to respective data of sale versus price; a dispersion measure table for storing errors obtained with respect to the respective data of sale versus price retrieved on the basis of the respective functions; an analysis device connected to the dispersion measure table so as to determine one function giving the minimum one of the errors and the values of parameters therefor; and a display connected to the dispersion measure table so as to display the sales data of the registered item corresponding to the analysis term in a graph expressing the determined one function into which the determined parameters are substituted, the display being arranged to display the predicted sale corresponding to the registered price inputted through the input terminal in accordance with the display of the sales data.

20 Claims, 44 Drawing figures

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#### First Hit Fwd Refs

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File: USPT

☐ Generate Collection

L12: Entry 6 of 12

Dec 1, 1992

DOCUMENT-IDENTIFIER: US 5168445 A

\*\* See image for Certificate of Correction \*\*

TITLE: Automatic ordering system and method for allowing a shop to tailor ordering

needs

Application Filing Date (1):

19890221

DATE ISSUED (1):

19921201

<u>Detailed Description Text</u> (30):

Further, in addition to controlling of goods suitable for stock (chocolate) exemplified in the foregoing embodiment, goods unsuited for stock, such as perishable foods, may be controlled similarly in accordance with the present invention by using a modified ordering amount calculation formula: ##EQU2##

Current US Original Classification (1):

705/10

Current US Cross Reference Classification (2):

705/28

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#### First Hit Fwd Refs

## Previous Doc Next Doc Go to Doc#

☐ Generate Collection

L12: Entry 6 of 12

File: USPT

Print

Dec 1, 1992

US-PAT-NO: 5168445

DOCUMENT-IDENTIFIER: US 5168445 A

\*\* See image for <u>Certificate of Correction</u> \*\*

TITLE: Automatic ordering system and method for allowing a shop to tailor ordering

needs

DATE-ISSUED: December 1, 1992

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Kawashima; Kazuhiro Yokohama JP
Komoda; Norihisa Kawasaki JP
Yagi; Masao Kashiwa JP
Tsushima; Isao Yamato JP

ASSIGNEE-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

Hitachi, Ltd. Tokyo JP 03

APPL-NO: 07/313614 [PALM]
DATE FILED: February 21, 1989

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY APPL-NO APPL-DATE

JP 63-49514 March 4, 1988

INT-CL-ISSUED: [05] G06F 15/20

US-CL-ISSUED: 364/403; 364/400

US-CL-CURRENT: 705/10; 700/90, 705/28

FIELD-OF-CLASSIFICATION-SEARCH: 364/403, 364/400, 235/385

See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

PAT-NO ISSUE-DATE PATENTEE-NAME US-CL

☐ 4345147 August 1982 Aaron et al. 235/385

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"Changing Market Structures and Information Technology", David W. Day, Industrial Market Management, pp. 13-16, 1976.

"Business Forecasts that are Automated: Smart Forecasts", Henry Fersko-Weiss, Personal Computing, vol. 10, No. 6, p. 168, 6186.

ART-UNIT: 231

PRIMARY-EXAMINER: Hayes; Gail O.

ATTY-AGENT-FIRM: Fay, Sharpe, Beall, Fagan, Minnich & McKee

### ABSTRACT:

An automated ordering system in a retail shop adapted to automatically order goods. In the system, a demand amount in the future is first supposed on the basis of an average of the past demands, the supposed future demand amount is corrected by the variable condition used to change the demand amount to predict a future demand amount, and the order amount is determined pursuant to a calculation formula on the basis of the predictive future demand amount and the stock volume of goods. Goods tend to be stocked in surplus or out of stock are diagnosed on the basis of the change of the past demands and the worker determines the amount of orders in respect to these goods.

28 Claims, 15 Drawing figures

## First Hit Fwd Refs Previous Doc

Next Doc Go to Doc#

Generate Collection

Print

L12: Entry 6 of 12 File: USPT Dec 1, 1992

US-PAT-NO: 5168445

DOCUMENT-IDENTIFIER: US 5168445 A

\*\* See image for <u>Certificate of Correction</u> \*\*

TITLE: Automatic ordering system and method for allowing a shop to tailor ordering

needs

DATE-ISSUED: December 1, 1992

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Kawashima; KazuhiroYokohamaJPKomoda; NorihisaKawasakiJPYagi; MasaoKashiwaJPTsushima; IsaoYamatoJP

ASSIGNEE-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

Hitachi, Ltd. Tokyo JP 03

APPL-NO: 07/313614 [PALM]
DATE FILED: February 21, 1989

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY APPL-NO APPL-DATE

JP 63-49514 March 4, 1988

INT-CL-ISSUED: [05] G06F 15/20

US-CL-ISSUED: 364/403; 364/400

US-CL-CURRENT: 705/10; 700/90, 705/28

FIELD-OF-CLASSIFICATION-SEARCH: 364/403, 364/400, 235/385

See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

PAT-NO ISSUE-DATE PATENTEE-NAME US-CL

☐ 4345147 August 1982 Aaron et al. 235/385

4771383	September 1988	Takahashi	364/405
4782451	November 1988	Mazzarella et al.	
4797839	January 1989	Powell	364/423
4887206	December 1989	Natarajan	364/401
4887207	December 1989	Natarajan	364/401
4958280	September 1990	Pauly et al.	364/401
	4782451 4797839 4887206 4887207	4782451       November 1988         4797839       January 1989         4887206       December 1989         4887207       December 1989	4771363       September 1988       Mazzarella et al.         4782451       November 1989       Powell         4797839       January 1989       Powell         4887206       December 1989       Natarajan         4887207       December 1989       Natarajan

#### OTHER PUBLICATIONS

"Changing Market Structures and Information Technology", David W. Day, Industrial Market Management, pp. 13-16, 1976.

"Business Forecasts that are Automated: Smart Forecasts", Henry Fersko-Weiss, Personal Computing, vol. 10, No. 6, p. 168, 6186.

ART-UNIT: 231

PRIMARY-EXAMINER: Hayes; Gail O.

ATTY-AGENT-FIRM: Fay, Sharpe, Beall, Fagan, Minnich & McKee

### ABSTRACT:

An automated ordering system in a retail shop adapted to automatically order goods. In the system, a demand amount in the future is first supposed on the basis of an average of the past demands, the supposed future demand amount is corrected by the variable condition used to change the demand amount to predict a future demand amount, and the order amount is determined pursuant to a calculation formula on the basis of the predictive future demand amount and the stock volume of goods. Goods tend to be stocked in surplus or out of stock are diagnosed on the basis of the change of the past demands and the worker determines the amount of orders in respect to these goods.

28 Claims, 15 Drawing figures

## Previous Doc Next Doc Go to Doc#

Generate:Gollection Print

L12: Entry 7 of 12

File: USPT

Nov 7, 1989

DOCUMENT-IDENTIFIER: US 4879650 A

TITLE: POS register system with combined optical scanner and weighing machine

Application Filing Date (1):

19861030

DATE ISSUED (1):

19891107

### Brief Summary Text (4):

In a supermarket, so-called perishable food, e.g., meats, vegetables, fruits, and the like, whose prices are determined in accordance with their weights, are on sale. These foods are weighed by an electronic weighing machine 16 shown in FIG. 2. Machine 16 shown in FIG. 2 has a load cell to measure weight. Machine 16 comprises housing 18, which accommodates a member for supporting the load cell, a measuring means for converting an electrical signal (strain signal), corresponding to a change in voltage produced by deformation of the load cell, into an electrical signal corresponding to a predetermined weight, an arithmetic control means for converting the electrical signal into a price, and a display means for numerically displaying the weight and the price. Display panel 20 used as the display means, and keyboard 22 are arranged on the front surface of housing 18. Keyboard 22 is electrically connected to the measuring means and the arithmetic control means, and is used for adjusting a zero point for weight display or for setting a price per unit weight. Weighing pan 24, on which a product to be weighed is placed, is located above housing 18 in a direction in which gravity acts. Pan 24 is connected to the load cell-supporting member so as to transmit weight of the product placed on pan 24 to the load cell-supporting member.

### Detailed Description Text (12):

In the POS register unit 26 with the arrangement according to the above-described embodiment of the present invention, in order to register a price and various data of a product, such as perishable foods, e.g., meats, vegetables, fruits, and the like, whose prices are determined in accordance with their weights, a code number indicating the classification of a product to be weighed is input from keyboard 22 of weighing machine 16 and, thereafter, the product is placed on optical scanner 10. Thus, the price and other data corresponding to the weight of the product can be displayed on display panels 20 and 33 of weighing machine 16. If the electrical circuit of weighing machine 16 and that of POS register 26 are connected by their interfaces, as shown in FIG. 4, the product data displayed on display panels 20 and 33 is simultaneously displayed on display panel 44 of electronic register 30, and the other data associated with the product code input from keyboard 22 of machine 16 can be processed by electronic register 30 in the same manner as for a product which has a bar code thereon. More specifically, given parts of data associated with a product whose price is determined by its weight are printed on a cash register receipt, and all or given parts of the data is sent to the central inventory control unit 53.

<u>Current US Original Classification</u> (1): 705/21

Current US Cross Reference Classification (3): 705/22

Current US Cross Reference Classification (4): 705/23

Current US Cross Reference Classification (5): 705/414

☐ Generate Collection

L12: Entry 8 of 12

File: USPT

Print

Apr 11, 1989

DOCUMENT-IDENTIFIER: US 4821186 A

TITLE: Bar code reading electronic cash register having an automatic discount

function

Application Filing Date (1):

19870206

DATE ISSUED (1):

19890411

Brief Summary Text (6):

A supermarket or the like sometimes sells perishable foods, etc., at a discount for a period of time. In supermarkets or the like, generally, in-store markings are attached to perishable foods. In order to perform discount processing, the operator must key in the discount charge or rate from the keyboard before or after the operator reads the bar codes using the scanner. Thus, each time a customer buys a commodity to be discounted, the operator must key in the discount charge or rate from the key board. This operation may become complicated. The operator may sometimes forget a keying operation at the keyboard for discounting purposes and not reduce the price.

Current US Original Classification (1):

705/14

<u>Current US Cross Reference Classification</u> (2):

705/23

### First Hit Fwd Refs

#### Previous Doc Next Doc Go to Doc#

### Generate Collection

L12: Entry 8 of 12

File: USPT

Print

Apr 11, 1989

US-PAT-NO: 4821186

DOCUMENT-IDENTIFIER: US 4821186 A

TITLE: Bar code reading electronic cash register having an automatic discount

function

DATE-ISSUED: April 11, 1989

INVENTOR-INFORMATION:

CITY STATE ZIP CODE COUNTRY NAME

JP Chiba Munakata; Kazuhiko JΡ

Takatsuki Kayama; Shiqeki

ASSIGNEE-INFORMATION:

STATE ZIP CODE COUNTRY TYPE CODE CITY NAME

JP 03 Omron Tateisi Electronics Co. Kyoto

APPL-NO: 07/011757 [PALM] DATE FILED: February 6, 1987

FOREIGN-APPL-PRIORITY-DATA:

APPL-DATE COUNTRY APPL-NO

February 10, 1986 JΡ 61-27299

INT-CL-ISSUED: [04] G06F 15/21

US-CL-ISSUED: 364/405; 235/378

US-CL-CURRENT: 705/14; 235/378, 705/23

FIELD-OF-CLASSIFICATION-SEARCH: 364/405, 235/378, 235/383

See application file for complete search history.

PRIOR-ART-DISCLOSED:

### U.S. PATENT DOCUMENTS

Search Selected | Search All Clear

	Ocaren ocicetes		
PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
3959624	May 1976	Kaslow	235/487 X
4554446	November 1985	Murphy	235/385 X
4679154	July 1987	Blanford	364/405 X

 ☐ 4707785
 November 1987
 Takagi
 364/405

 ☐ 4757448
 June 1988
 Takagi
 364/405

ART-UNIT: 236

PRIMARY-EXAMINER: Smith; Jerry

ASSISTANT-EXAMINER: Kibby; Steven G.

ATTY-AGENT-FIRM: Stevens, Davis, Miller & Mosher

### ABSTRACT:

An electronic cash register stores data on discounts concerning commodities to which an in-store marking bar code is attached. When this bar code is read, data on a discount corresponding to the department code contained in the bar code is read, a discount is made on the unit price data contained in the bar code on the basis of the discount data, and the discounted price data is registered.

6 Claims, 8 Drawing figures

File: USPT

Generate Collection Print

L12: Entry 9 of 12

Dec 6, 1983

DOCUMENT-IDENTIFIER: US 4419738 A

TITLE: Unit-price presetting method for electronic cash registers

Application Filing Date (1):

19811106

DATE ISSUED (1):

19831206

Brief Summary Text (3):

In registering the sale proceeds, it is heretofore a usual but troublesome practice liable to error to depress amount keys equivalent to numeral keys every time a commodity or article is sold, to depress a multiplication key and numeral keys if a plurality of commodities or articles are sold, and to depress commodity or article keys or department keys. Accordingly, some of the cash registers equipped with unit-price memories are so constructed that the unit price of each commodity or article may be preset in the memory and thereby registration may be made by depressing only the commodity key corresponding to the commodity sold; in this case, the unit price of each commodity or article is preset by depressing the amount keys equivalent to numeral keys and then by depressing the commodity key, and the data once preset are kept stored in the memory unless they are intentionally erased. In the above registers, the unit price of the commodities stable in price such as medicines can be used for a long time if once preset, however the unit price of the commodities such as perishable foodstuffs subject to daily unit-price change must be preset in each memory everyday before the office is opened with the result that the unit-price presetting time is increased. In addition, there are many other factors which cause price changes; for instance, the unit price must be changed when goods are purchased on the judgement of the branch office itself in addition to on the basis of the instructions from the head office (control center, etc.), when goods are for sale at a discount or at a special price, when goods left unsold are for sale at a discount, when goods on sale at a discount are returned to the normal price, and when the branch office itself judged it necessary to adopt a strategic price in rivalry with other dealers in the same commercial district. Thus the frequency of unit-price presetting is very high, and accordingly the frequencies of input errors and troublesome checking are so much increased.

Current US Original Classification (1): 705/20

> Go to Doc# Previous Doc Next Doc

### First Hit Fwd Refs

# <u>Previous Doc</u> <u>Next Doc</u> <u>Go to Doc#</u>

## ☐ Generate Collection Print

L12: Entry 9 of 12

File: USPT

Dec 6, 1983

US-PAT-NO: 4419738

DOCUMENT-IDENTIFIER: US 4419738 A

TITLE: Unit-price presetting method for electronic cash registers

DATE-ISSUED: December 6, 1983

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Takahashi; YasuyoshiShizuokaJPSakiguchi; ShigeoShizuokaJPSato; TeruyoshiShizuokaJP

ASSIGNEE-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

Tokyo Electric Co., Ltd. Tokyo JP 03

APPL-NO: 06/318815 [PALM]
DATE FILED: November 6, 1981

PARENT-CASE:

This is a continuation of application Ser. No. 096,197 filed Nov. 20, 1979, now abandoned, which is a continuation of abandoned application Ser. No. 807,304, filed June 16, 1977.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY APPL-NO APPL-DATE

JP 51-70788 June 16, 1976

JP 51-70789 June 16, 1976

INT-CL-ISSUED: [03] G06F 15/20

US-CL-ISSUED: 364/900; 364/405

US-CL-CURRENT: 705/20

FIELD-OF-CLASSIFICATION-SEARCH: 364/200, 364/900, 364/405

See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
3294960	December 1966	Townsend	364/405 X
3403225	September 1968	Mislan et al.	364/900
3631403	December 1971	Asbo et al.	364/200
3686637	August 1972	Zachar	364/200
3710085	January 1973	Brewer	364/404
3789193	January 1974	Bremmer	235/449
<u>3866175</u>	February 1975	Selfert	340/152R
3946220	March 1976	Brobeck et al.	364/405
3983577	September 1976	Ito et al.	364/900

### FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	CLASS
2333908	July 1972	DE	

ART-UNIT: 232

PRIMARY-EXAMINER: Zache; Raulfe B.

ATTY-AGENT-FIRM: Oblon, Fisher, Spivak, McClelland & Maier

### ABSTRACT:

A unit-price presetting method for a plurality of electronic cash registers each equipped with a built-in memory and provided independently of one another, in which the unit price for each commodity code is stored in a portable memory unit by the use of one electronic cash register and in which the portable memory unit is used to store the data of the same contents in all of the other electronic cash registers.

2 Claims, 7 Drawing figures

Generate Collection Print

L12: Entry 10 of 12

File: JPAB

May 7, 1993

DOCUMENT-IDENTIFIER: JP 05114086 A TITLE: COMMODITY SALES DATA PROCESSOR

### Abstract Text (2):

CONSTITUTION: In the case of forecasting the time-band sorted transition of perishable foods specified in each unit, a host computer 4 on the shop side sends a sales forecasting execution command to a file processor 2. Thereby a sales forecasting execution flag is turned on and then the average number of selling points, the minimum number of selling points and the maximum number of selling points in each perishable food at each time band can be obtained. After ending a prescribed sales forecasting execution time, a master terminal 3M is operated to send a sales forecasting inspecting command. Thus, the contents of a data storing part at each time band in a time band data area of a specific single article table are successively read out in each specific single article and printed out by a printer in the master terminal 3M to issue a sales forecasting inspection report.

Publication Date (1): 19930507

Application Date (1):

19911023

Current US Cross Reference Classification (1): 705/10

Current US Cross Reference Classification (2): 705/22

Current US Cross Reference Classification (3): 705/36

☐ Generate Collection

L12: Entry 10 of 12

File: JPAB

Print

May 7, 1993

PUB-NO: JP405114086A

DOCUMENT-IDENTIFIER: JP 05114086 A TITLE: COMMODITY SALES DATA PROCESSOR

PUBN-DATE: May 7, 1993

INVENTOR-INFORMATION:

NAME COUNTRY

IMURA, HIROSHI

ASSIGNEE-INFORMATION:

NAME COUNTRY

TOKYO ELECTRIC CO LTD

APPL-NO: JP03275545

APPL-DATE: October 23, 1991

US-CL-CURRENT: <u>705</u>/<u>10</u>; <u>705</u>/<u>22</u>, <u>705</u>/<u>36</u> INT-CL (IPC): G07G 1/12; G06F 15/21

ABSTRACT:

PURPOSE: To easily forecast sales transition in each time band by automatically calculating and outputting the average value of totalized data in each time band from commodity sales data totalizing value in each time band for totalizing data every data.

CONSTITUTION: In the case of forecasting the time-band sorted transition of perishable foods specified in each unit, a host computer 4 on the shop side sends a sales forecasting execution command to a file processor 2. Thereby a sales forecasting execution flag is turned on and then the average number of selling points, the minimum number of selling points and the maximum number of selling points in each perishable food at each time band can be obtained. After ending a prescribed sales forecasting execution time, a master terminal 3M is operated to send a sales forecasting inspecting command. Thus, the contents of a data storing part at each time band in a time band data area of a specific single article table are successively read out in each specific single article and printed out by a printer in the master terminal 3M to issue a sales forecasting inspection report.

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Search Results - Record(s) 11 through 12 of 12 returned.

☐ 11. Document ID: JP 04137094 A

Using default format because multiple data bases are involved.

L12: Entry 11 of 12

File: JPAB

May 12, 1992

PUB-NO: JP404137094A

DOCUMENT-IDENTIFIER: JP 04137094 A TITLE: ELECTRONIC CASH REGISTER

PUBN-DATE: May 12, 1992

INVENTOR-INFORMATION:

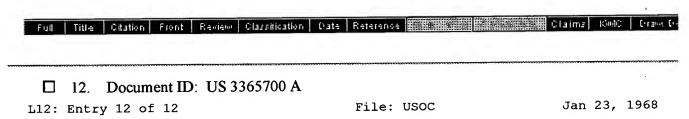
NAME

COUNTRY

NAKAMICHI, SHINICHI

US-CL-CURRENT: 705/16; 705/22

INT-CL (IPC): G07G 1/12



US-PAT-NO: 3365700

DOCUMENT-IDENTIFIER: US 3365700 A

TITLE: Telemetering inventory system

DATE-ISSUED: January 23, 1968

INVENTOR-NAME: HERMAN GEORGE H; CORTNER JR WILLIAM C

US-CL-CURRENT: <u>705/29</u>

